



ICT Lab Project

Phase # 2

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2. Software Engineering Basics

Certainly! Let's begin by outlining the basic features and functionalities for a car rental system and then break them down into user stories.

Task 3: Define Project Requirements

Features and Functionalities

1. User Authentication

- Registration and login for customers and admin staff.
- Password reset functionality for users.

2. Car Listings

- Display available cars with details (make, model, year, price, availability).
- Search and filter options (by location, date, type of car, etc.).

3. Booking and Reservation

- Allow users to select a car, specify pickup/drop-off dates, and make reservations.
- Provide confirmation and rental details after successful booking.

4. Admin Management

- Add, remove, or update car listings.
- Manage user accounts, bookings, and reservations.

5. Payment Integration

- Secure payment gateway for users to complete bookings.
- Generate invoices and receipts for transactions.

6. Feedback and Ratings

- Enable users to leave reviews, ratings, and feedback for rented cars/services.

Technical Constraints or Considerations

1. **Scalability:** The system should handle a growing number of users and car listings efficiently.
2. **Security:** Implement secure authentication and payment handling to protect user data.
3. **Integration:** Integrate with a reliable payment gateway for secure transactions.
4. **Performance:** Ensure fast loading times and responsiveness for a smooth user experience.
5. **Compliance:** Adhere to legal and regulatory requirements related to car rental services.

Task 4: Create User Stories

User stories break down the requirements into manageable tasks from the perspective of end-users. Here are some examples:

- As a User, I want to register an account so that I can access the car rental services.
- As a User, I want to search for available cars based on my location and dates to find suitable options.

- As a User, I want to view detailed information about a specific car, including pricing and availability.
- As a User, I want to select a car, specify pickup/drop-off dates, and make a reservation.
- As a User, I want to receive a confirmation email with rental details after successfully booking a car.
- As an Admin, I want to add new cars to the system, including details such as make, model, and availability.
- As an Admin, I want to manage user accounts, including the ability to deactivate or delete accounts.
- As an Admin, I want to review and manage booking requests, including approving or rejecting reservations.
- As a User, I want to securely pay for my reservation using a credit/debit card.
- As a User, I want to provide feedback and ratings for the rented car and overall service experience.

These user stories can be further refined and prioritized based on the project's scope and timeline. They serve as the basis for development tasks and help ensure that functionalities are aligned with user needs.

Table;

<i>User Authentication</i>	<i>Car Listings</i>	<i>Booking and Reservation</i>	<i>Payment Integration</i>	<i>Feedback and Ratings</i>	<i>Admin Management</i>
As a User, I want to register an account so that I can access the car rental services.	As a User, I want to search for available cars based on my location and dates to find suitable options.	As a User, I want to view detailed information about a specific car, including pricing and availability. As a User, I want to select a car, specify pickup/drop-off dates, and make a reservation.	As a User, I want to securely pay for my reservation using a credit/debit card.	As a User, I want to provide feedback and ratings for the rented car and overall service experience.	As an Admin, I want to add new cars to the system, including details such as make, model, and availability. As an Admin, I want to manage user accounts, including the ability to deactivate or delete accounts. As an Admin, I want to review and manage booking requests, including approving or rejecting reservations

